

REMARKS

Amendment to Specification

Applicant has amended ¶¶0017-0019 to provide explicit support for referring to the one or more common feedback criteria as "CFC", to the basic channel feedback report as "BCR", and to the enhanced channel feedback report as "ECR". These amendments do not introduce new matter and are merely presented for ease of reference in the drawings.

Objection to Drawings/Specification

Applicant submits a revised Fig. 1 to address the examiner's objection, along with an annotated sheet indicating the changes. In revised Fig. 1, the radio signals between the upper base station 14 and the associated mobile stations 30 have been modified to show that respective transmissions contain the CFC, BCR, and ECR discussed above. Applicant submits that at least one of these elements is not present in the prior art. As such, the label "prior art" is inappropriate. Accordingly, Applicant requests withdrawal of the corresponding objections to the drawings and specification (description of the drawings).

Amendment to Claims 16-17, 30-31

Applicant has amended claims 16-17, 30-31 to depend from independent claims 1 and 21, respectively, as interpreted by the examiner. Applicant thanks the examiner for noting the earlier amendment typographical error that created the issue. In addition, Applicant has amended claim 17 to correct an obvious typographical error, without narrowing the scope thereof. These amendments do not introduce new matter and are not presented to overcome any cited art. In view of the amendments, Applicant requests withdrawal of the corresponding objection(s).

Claim Rejections under §101

The examiner rejects claims 35-39, 64-67 under §101 as being directed to non-statutory subject matter. Applicant respectfully disagrees with the examiner's position, but cancels these claims in order to narrow the issues for appeal.

Claim Rejections under §102

Claims 1-14

The examiner rejects claims 1-14 under §102 over WO 00/70897 ("WO"). Applicant requests reconsideration.

Applicant notes that the examiner points to page 11, line 18 to page 12, line 16, and page 10, lines 3-17, for support of the proposition that WO teaches "a mobile terminal receiving at least one common feedback criterion broadcast to a plurality of mobile terminals," and that this proposition is essential to the examiner's rejection. Applicant respectfully points out that the cited passages of WO simply do not show a "common feedback criterion" that is "broadcast to a plurality of mobile terminals." Instead, it is readily apparent that WO teaches a set-each-mobile-individually approach, not a common/broadcast approach. Page 11, lines 17-22 of WO read in relevant part: "...a base station... generates and transmits a Measurement Control Message for a mobile station. In general, the measurement control message instructs the mobile station to measure on or more radio-related (or other) parameters that can be measured by the mobile station." (emphasis added). Note that this explanation is in terms of a transmission targeted to a single mobile station only. This is confirmed by the language of the Summary section of WO found at page 6, lines 5-9, "A control node in the mobile radio network instructs a mobile station to measure one or more radio-related parameters for one or more cells...The mobile station is instructed to send a report to the control node when such event occurs." (emphasis added). *See also*, page 11, lines 14-16, "The present invention flexible allows for only a fraction of the mobile stations to perform such network supervision...." If the same triggering event is a common one set for all mobiles in WO, then all of the mobiles would be doing the stated "network supervision", not just "a fraction," contrary to the express teaching of WO. Thus, it is plain that the WO at most teaches that the base station should set and send the measurement parameter/threshold (of the measurement control message) on a mobile-by-mobile basis. A threshold that is set and sent on mobile-by-mobile basis is neither a "broadcast" nor a "common" feedback criterion. In simple terms, the invention of claim 1 requires that the mobile receive "a common feedback criterion broadcast to a plurality of mobile terminals." The WO approach does not have a "common" feedback criterion; it uses "individual" criteria instead.

On a related note, Applicant is unable, after reviewing the latest Action, to find the examiner's response to the point Applicant raised regarding the meaning of "broadcast transmissions." Therefore, Applicant repeats the request of in the earlier response:

Applicant notes that while a [WO] base station may transmit to a plurality of mobile stations on a mobile-station-by-mobile-station basis, such are

not a "broadcast" transmission as that term is understood by one of skill in the art. The examiner is specifically requested to acknowledge or deny this; and, if denied, to provide a factual basis for the examiner's position regarding how the term "broadcast" would be understood by one of skill in this art.

(Response of May 2006, page 19, discussing WO). Instead, given the express teachings of WO, it is clear that the WO criteria is transmitted to one specific mobile terminal at a time in the targeted measurement control message, not "broadcast to a plurality of mobile terminals."

In view of the above, Applicant submits that WO fails to teach each and every limitation of independent claim 1. Accordingly, Applicant respectfully submits that the cited art does not anticipate the subject matter of independent claim 1, or its dependent claims, under the well-established law of §102.¹

Claims 52-57

The examiner rejects claims 52-57 under §102 over WO. Applicant notes that independent claim 52 requires "broadcast transmitting said at least one common feedback criterion from said base station to said plurality of mobile terminals." As such, Applicant submits that these claims are not anticipated by WO for reasons similar to those expressed above with respect to independent claim 1.

Claims 58-63

The examiner rejects claims 58-63 under §102 over WO. Applicant notes that independent claim 58 requires that the control logic be "operative to cause said transmitter to transmit said at least one common feedback criterion in a broadcast fashion from said base station to said plurality of mobile terminals." As such, Applicant submits that these claims are not anticipated by WO for reasons similar to those expressed above with respect to independent claim 1.

Further, Applicant notes that independent claim 58 requires that the control logic be "operative to determine at least one common feedback criterion; said at least one common feedback criterion helping to define a condition whose satisfaction controls which plurality of said plurality of mobile terminals subsequently transmit an enhanced channel report regarding

¹ Applicant also does not necessarily agree that WO shows the claim basic and enhanced channel feedback reports. However, this response assumes *arguendo* that the examiner is correct on this point because it is clear that WO fails to show the other limitation(s) directly argued herein. Applicant expressly reserves the right to argue this point at a later time, if necessary.

one or more of said downlink channels to said base station." On this point, the Examiner points to page 11, lines 17-18 and "Figure 3 and its corresponding description and Figure 5 and its corresponding description." In addition, the examiner continues that these passages "disclose in [sic] the measurement control message including conditions." Applicant acknowledges that the WO measurement control message contains a condition. However, this misses the point. The WO conditions are set on a mobile-by-mobile basis, and transmitted on a mobile-by-mobile basis. The WO conditions are not common to a plurality of mobiles, nor are they transmitted to the mobiles in a broadcast fashion. Because of this, Applicant respectfully submits that the examiner's assertions bridging pages 5-6 of the Action regarding the teachings of WO are incorrect.

Claim Rejections under §103

Claims 16-17

The Examiner rejects dependent claims 16-17 under §103 over WO in combination with Seo. Applicant requests reconsideration.

For claim 16, Applicant submits that WO does not make the showings necessary to support the rejection as discussed above with respect to independent claim 1. And, there is no indication that modifying WO according to Seo, as relied on by the examiner, would cure the defects in WO with respect to the required "one common feedback criterion broadcast to a plurality of mobile terminals."

Further, Applicant notes that the §103 rejection explicitly relies on the proposition that "Seo teaches in [Fig. 4] a way of off-setting via a different period the CQI information on the uplink HS-DPCCH channel and in Figure 9 the method of actually achieving this by using a mobile terminal to indicate the presence of specific CQI information -- refreshment or refinement. See Figures 4 and 9 and the corresponding descriptions. Therefore, it would have been obvious to modify the WO by using the method of Seo to indicate the presence of the enhanced channel report by using two different spreading factors because the method of Seo indicates to the base station the type of CQI information being transmitted."

It is undisputed that Figures 4 and 9 of Seo show a method of offsetting (in time) the transmission of two different types of reports by a mobile station. However, these Seo Figures (and corresponding discussion) make absolutely no teaching of using different spreading factors to differentiate between the different types of reports; instead, the type of report is based entirely

on the timing position of the report.² More fully, these figures in Seo actually show that the mobile station transmits a "refreshment" report each M time periods (referred to as "TTI's" or "transmission time intervals" in Seo), and a "refinement" report at each designated "N" time interval falling between successive "refreshment" reports. It is also clear from Seo that M is an integer multiple larger than N. Thus, as each N interval elapses, a report is sent. If the time interval number is evenly divisible by M, then a M "refreshment" report is sent; if the time interval is not evenly divisible by M, then a N "refinement" report is sent. Either way, at each time interval, a complete report of the designated type is sent. The timing of these reports is predetermined and fixed.

In view of the above, the combination relied on by the examiner suffers from two fatal flaws. First, the cited portions of Seo relate only to time-offsetting the reports and do not mention using different spreading factors to differentiate between types of reports. Thus, the examiner appears to be relying on the proposition that a teaching that time-offsetting may be used to identify type of report somehow renders obvious the idea of using different spreading factors to differentiate between types of reports. This is simply too big a leap in logic to be proper under the law of §103. Instead, the §103 law requires that the references, when combined, must show each limitation. Absent a teaching on identification-based-on-spreading-factors, the examiner's proffered combination fails this test. Second, the combination relies on the notion that WO may be properly modified according to Seo. However, the modification proposed by the examiner would defeat the fundamental purpose of WO. It is undisputed that WO's main purpose is to provide an event-based triggering of feedback reports. However, the Seo's approach relies on time-offsetting between the reports using a predetermined fixed timing pattern (every M time slots, send M report with a predetermined number of N reports in-between at a periodic basis.). Thus, grafting Seo onto WO would require that WO go from an event-based triggered reporting approach to a fixed reporting pattern approach. Thus, the modified WO approach would not be able to immediately send a report when a triggering event is detected, but would instead have to wait until the next interval for a "M" report, and would

² Applicant has been unable to find any discussion of differential determination of report type based on spreading factor employed anywhere within the cited portions of Seo. Therefore, if the examiner contends that Seo teaches differential determination of report type based on spreading factor, the examiner is specifically requested to point out the specific paragraph and line numbers being relied on, and to provide a detailed explanation of the operation of Seo on this point. On this, the examiner is respectfully reminded that MPEP § 706.07 requires that "the Examiner never lose sight of the fact that in every case the applicant is entitled to a full and fair hearing, and that a clear issue between applicant and examiner should be developed [] before appeal." Thus, it will be understood that the examiner is conceding this point absent such a citation and explanation in the next communication.

transmit numerous N reports before then. Such an implementation would undercut the fundamental reason for event-triggered reporting given in Seo -- prompt reporting in response to a triggering event. Thus, Applicant submits that modifying WO according to Seo, as suggested by the examiner, is improper because such a modification defeats the purpose of WO. Accordingly, Applicant submits that Seo cannot be properly combined with WO; and, even if combined, would not result in the invention of dependent claim 16.

Applicant further submits that the logic expressed above with respect to the different "spreading factor" of dependent claim 16 applies similarly to the different "pilot patterns" of dependent claim 17.

In view of the above, Applicant submits that dependent claims 16-17 define patentable subject matter over the cited art.

Claims 30-31

The examiner rejects dependent claims 30-31 under §103 over WO in combination with Seo. Applicant submits that these claims are patentable for reasons similar to those expressed above with respect to dependent claims 16-17, respectively.

Claims 18-20, 32-34

The examiner rejects dependent claims 18-20, 32-34 under §103 over WO alone. Applicant requests reconsideration.

Applicant first point the examiner to the arguments above discussing how WO does not make the showings necessary to support the rejection of the corresponding independent claims. And, there is no indication that modifying WO as suggested by the examiner would cure the defects in WO with respect to the required "one common feedback criterion broadcast to a plurality of mobile terminals." Thus, these dependent claims define patentable subject matter because their respective independent claims are patentable over the cited art.

Further, with respect to the limitations added by, for instance, claim 19, the rejection appears to necessarily rely on the proposition that any use of logical channels would be obvious "based on resource allocations and volume traffic within the system at the time the given report was to be sent as well as the required bandwidth and necessary channel characteristics..." Under this rationale, any division of data between any logical channels is necessarily obvious. Such is clearly not the case based on the numerous issued patents directed to specific

allocations of data between logical channels. As such, Applicant respectfully challenges the examiner to provide citations for support for the examiner's stated proposition.

In view of the above, Applicant submits that all currently pending claims are in condition for allowance. However, if any additional issues remain, the Examiner is requested to telephone the undersigned so that they may be expeditiously resolved.

Respectfully submitted,
COATS & BENNETT, P.L.L.C.



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John R. Owen
Registration No.: 42,055
Telephone: (919) 854-1844
Facsimile: (919) 854-2084

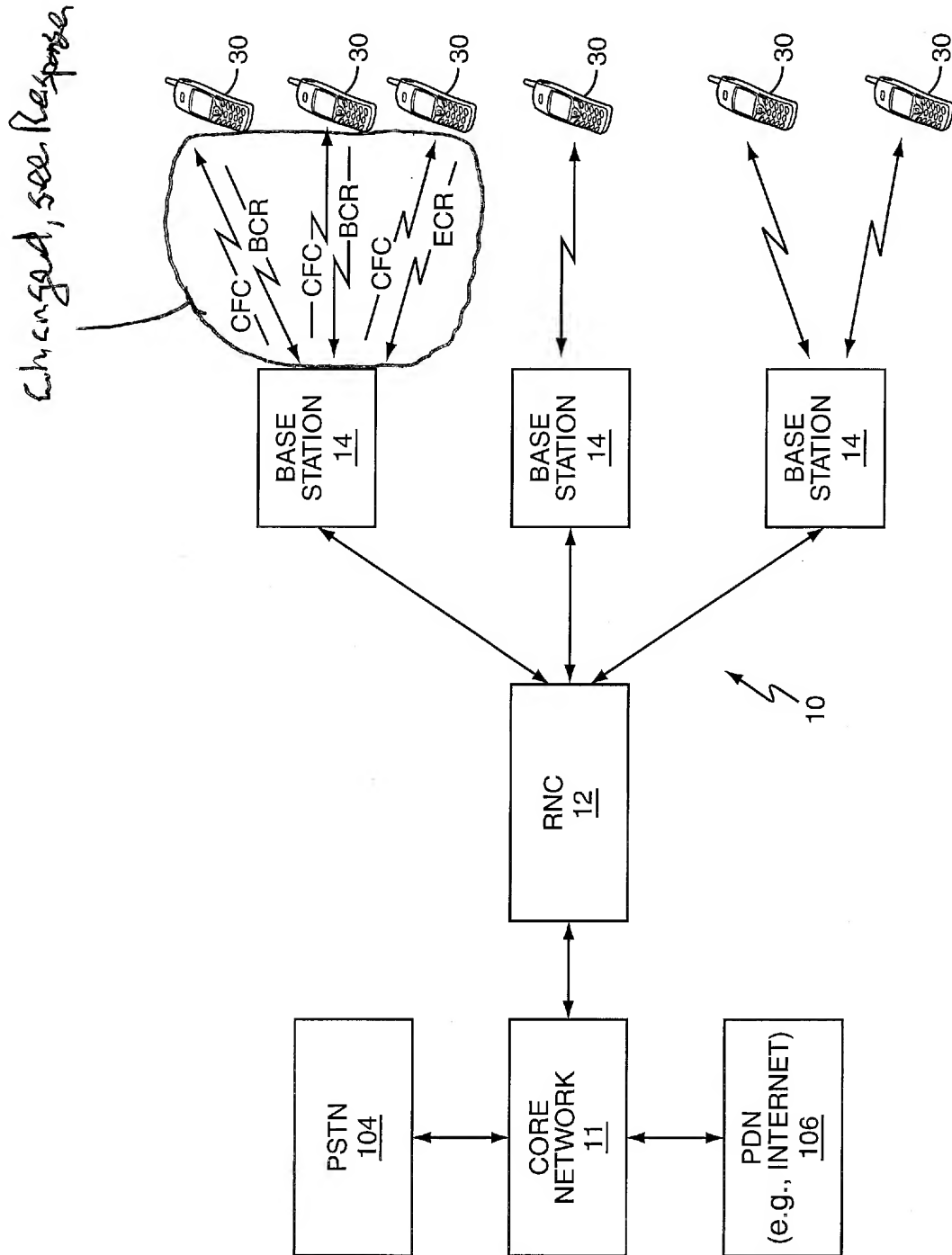


FIG. 1